



#4

SEQUENCE LISTING

<110> Shimkets, Richard
Lichenstein, Henri
Vernet, Corine
Fernandes, Elma

<120> NOVEL POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME

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<140> 09/715,417

<141> 2000-11-16

<150> 60/166,336

<151> 1999-11-19

<150> 60/167,785

<151> 1999-11-29

<150> 60/187,844

<151> 2000-03-08

<160> 38

<170> PatentIn Ver. 2.1

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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 Ser Arg Arg Ser Ile Val Pro Ser Ser Pro Gln Pro Gln Arg Ala Gln
 50 55 60
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 100 105 110
 Ala Ile Tyr Phe Ser Ala Glu Lys Gln Cys Met Ile Ile Val Thr Ser
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 <213> Homo sapiens

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 35 40 45
 Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
 50 55 60
 Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
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 Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
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 100 105 110
 Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
 115 120 125
 Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
 130 135 140
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 145 150 155 160
 Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
 165 170 175
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 195 200 205
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210 215 220
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 35 40 45
 Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
 50 55 60
 Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
 65 70 75 80
 Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
 85 90 95
 Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
 100 105 110
 Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
 115 120 125
 Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
 130 135 140
 Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
 145 150 155 160
 Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
 165 170 175
 Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Val Asp Leu
 180 185 190
 His Phe Gln Asp Thr Thr Val Gly Val Phe His Leu Arg Ser Pro Leu
 195 200 205
 Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg Glu Ala Cys Ala Asn
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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Arg Gly Ala Ala Val Arg Val Cys Arg Gly Arg Gly Arg Ala Gly
 50 55 60
 Gly Ala Gly Arg Arg Asp Gly Arg Ala Ala Leu Gly Gly Pro Thr Ala
 65 70 75 80

Ala Cys Ser Thr Ala Trp Ser Thr Trp Lys Pro Thr Trp Thr Gly Cys
85 90 95

Val Pro Ser Ser Thr Pro Ser Ala Ala Thr Thr Ser Ser Ser Thr Ala
100 105 110

Gln Ala Arg Trp Ser Ser Ala Arg Ile Thr Ala Pro Cys Glu His Leu
115 120 125

Leu Pro Asn Gly Ala Val Gly Pro Gln Ala Asp Cys Arg Pro Pro Arg
130 135 140

Gly Phe Ser Leu Leu His Arg Pro Cys Gln Val His Phe Ser Thr Val
145 150 155 160

Tyr Leu Pro Gly His His Ala Ala Arg Gly Thr Glu Pro Thr Ser Thr
165 170 175

Ser Phe Pro Arg Trp Thr Ser Leu Ser Ile Met Gly Ser Trp Pro Ser
180 185 190

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Ser
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<213> Homo sapiens

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Ser Asn Val His Asn Leu Asn Ser Val Lys Glu Ser Pro His Glu Arg
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His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala Glu Phe
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<211> 669

<212> PRT

<213> Homo sapiens

<400> 12

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Ser	Leu	His	Ser	Ile	Ile	Leu	Thr	Thr	Lys	Leu	Thr	Ser	Gln	Ser	Leu
			20					25					30		

Gly	Gly	Pro	Arg	Gly	Val	Glu	Glu	Arg	Met	Glu	Asp	Arg	Arg	Ala	Lys
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Trp	His	Ile	Ala	Ala	Lys	Asp	Ser	Cys	Leu	Trp	Leu	Lys	Pro	Ser	Asp
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Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn		
	85	90 95
Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val		
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Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile		
	115	120 125
Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp		
	130	135 140
Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser		
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Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr		
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Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile		
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Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln		
	195	200 205
Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln		
	210	215 220
Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg		
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Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys		
	245	250 255
Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp		
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Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg		
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Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu		
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Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp		
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Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg		
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Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro		
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Phe Lys Arg Asn Leu Glu Gly Cys Arg Glu Arg Cys Ser Leu Val Ile		
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Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Ala
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 420 425 430
 Leu Pro Cys Gly Cys Ser Asp His Gly Gln Cys Asp Asp Gly Ile Thr
 435 440 445
 Gly Ser Gly Gln Cys Leu Cys Glu Thr Gly Trp Thr Gly Pro Ser Cys
 450 455 460
 Asp Thr Gln Ala Val Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala
 465 470 475 480
 His Ala Thr Cys Lys Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr
 485 490 495
 Glu Gly Asp Gly Ile Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp
 500 505 510
 Asn Gly Gly Cys Ala Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys
 515 520 525
 Val Ser Cys Ser Cys Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys
 530 535 540
 Thr Glu Ile Asp Pro Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu
 545 550 555 560
 His Ala Thr Cys Lys Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys
 565 570 575
 Lys Ser His Tyr Val Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu
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 595 600 605
 Lys Cys Val Asp Leu His Phe Gln Asp Thr Thr Val Gly Val Phe His
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 Leu Arg Ser Pro Leu Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg
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 Glu Ala Cys Ala Asn Glu Ala Ala Thr Met Ala Thr Tyr Asn Gln Leu
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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
 50 55 60
 Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
 65 70 75 80

Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
 85 90 95
 Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
 100 105 110
 Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
 115 120 125
 Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
 130 135 140
 Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
 145 150 155 160
 Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
 165 170 175
 Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
 180 185 190
 Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
 195 200 205
 Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
 210 215 220
 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240
 Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
 245 250 255
 Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
 260 265 270
 Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
 275 280 285
 Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
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 Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
 305 310 315 320
 Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg
 325 330 335
 Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro
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 <211> 2483
 <212> DNA
 <213> Homo sapiens

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 <211> 669
 <212> PRT
 <213> Homo sapiens

<400> 16
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 35 40 45
 Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
 50 55 60
 Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
 65 70 75 80
 Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
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 Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
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 Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
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 Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
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 Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
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 Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
 180 185 190
 Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
 195 200 205
 Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
 210 215 220
 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240
 Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
 245 250 255
 Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
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 Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
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 Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
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 Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
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 420 425 430
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 435 440 445
 Gly Ser Gly Gln Cys Leu Cys Glu Thr Gly Trp Thr Gly Pro Ser Cys
 450 455 460
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 485 490 495
 Glu Gly Asp Gly Ile Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp
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 Asn Gly Gly Cys Ala Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys
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 Thr Glu Ile Asp Pro Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu
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 Lys Ser His Tyr Val Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu
 580 585 590
 Pro Ile Asp Arg Cys Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala
 595 600 605
 Lys Cys Val Asp Leu His Phe Gln Asp Thr Thr Val Gly Val Phe His
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625

630

635

640

Glu Ala Cys Ala Asn Glu Ala Ala Thr Met Ala Thr Tyr Asn Gln Leu
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<210> 17

<211> 3625

<212> DNA

<213> Homo sapiens

<400> 17

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<210> 18
 <211> 545
 <212> PRT
 <213> Homo sapiens

<400> 18
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 Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
 35 40 45
 Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
 50 55 60
 Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
 65 70 75 80
 Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
 85 90 95
 Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
 100 105 110
 Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
 115 120 125
 Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
 130 135 140
 Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
 145 150 155 160
 Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
 165 170 175

Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
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 Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
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 Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
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 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240
 Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
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 Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
 260 265 270
 Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
 275 280 285
 Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
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 Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
 305 310 315 320
 Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg
 325 330 335
 Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro
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 Phe Lys Arg Asn Leu Glu Gly Cys Arg Glu Arg Cys Ser Leu Val Ile
 355 360 365
 Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Gly
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 405 410 415
 Arg Arg Val Arg Cys Ala Gly Arg Gly Asp Leu Gly Leu Ile Val Cys
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 Pro Val Ala Ala Gln Thr Thr Asp Ser Ala Met Met Ala Ser Arg Ala
 435 440 445
 Pro Gly Ser Ala Ser Val Lys Arg Gly Gly Gln Ala Pro Arg Val Thr
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 465 470 475 480

Pro Pro Val Arg Arg Thr Thr Arg Val Ser Val Thr Trp Ile Met Lys
 485 490 495

Val Thr Glu Ser His Ala Gln Leu Trp Ile Ser Ala Asn Arg Thr Thr
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Arg
 545

<210> 19
 <211> 1577
 <212> DNA
 <213> Homo sapiens

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<210> 20
 <211> 334
 <212> PRT
 <213> Homo sapiens

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Gly Gly Pro Arg	Gly Val Glu Glu	Arg Met Glu Asp	Arg Arg Ala Lys
35		40	45
Trp His Ile Ala	Ala Lys Asp Ser Cys	Leu Trp Leu Lys	Pro Ser Asp
50		55	60
Leu Leu Leu Gln	Val Lys Asp Trp Asp	Lys Tyr Gly Leu	Met Pro Gln
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Val Leu Arg Tyr	His Val Val Ala	Cys His Gln Leu	Leu Leu Leu Glu Asn
	85	90	95
Leu Lys Leu Ile	Ser Asn Ala Thr	Ser Leu Gln Gly	Glu Pro Ile Val
	100	105	110
Ile Ser Val Ser	Gln Ser Thr Val	Tyr Ile Asn Asn	Lys Ala Lys Ile
	115	120	125
Ile Ser Ser Asp	Ile Ile Ser Thr	Asn Gly Ile Val	His Ile Ile Asp
	130	135	140
Lys Leu Leu Ser	Pro Lys Asn Leu	Leu Ile Thr Pro	Lys Asp Asn Ser
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Gly Arg Ile Leu	Gln Asn Leu Thr	Thr Leu Ala Thr	Asn Asn Gly Tyr
	165	170	175
Ile Lys Phe Ser	Asn Leu Ile Gln	Asp Ser Gly Leu	Leu Leu Ser Val Ile
	180	185	190
Thr Asp Pro Ile	His Thr Pro Val	Thr Leu Phe Trp	Pro Thr Asp Gln
	195	200	205
Ala Leu His Ala	Leu Pro Ala Glu	Gln Gln Asp Phe	Leu Phe Asn Gln
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Asp Asn Lys Asp	Lys Leu Lys Glu	Tyr Leu Lys Phe	His Val Ile Arg
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Asp Ala Lys Val	Leu Ala Val Asp	Leu Pro Thr Ser	Thr Ala Trp Lys
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	260	265	270
Ile Gly Asp Leu	Phe Leu Asn Gly	Gln Thr Cys Arg	Ile Val Gln Arg
	275	280	285
Glu Leu Leu Phe	Asp Leu Gly Val	Ala Tyr Gly Ile	Asp Cys Leu Leu
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<210> 21
<211> 2070
<212> DNA
<213> Homo sapiens

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<210> 22
<211> 280
<212> PRT
<213> Homo sapiens

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		35					40						45																
Ser	Arg	Arg	Ser	Ile	Val	Pro	Ser	Ser	Pro	Gln	Pro	Gln	Arg	Ala	Gln														
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	65				70					75					80														
Pro	Gln	His	Thr	Pro	His	Ser	Leu	Pro	Ser	Pro	Asp	Pro	Asp	Ile	Leu														
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Ser	Val	Ser	Ser	Cys	Pro	Ala	Leu	Tyr	Arg	Asn	Glu	Glu	Glu	Glu	Glu														
			100					105					110																
Ala	Ile	Tyr	Phe	Ser	Ala	Glu	Lys	Gln	Trp	Glu	Val	Pro	Asp	Thr	Ala														
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Ser	Glu	Cys	Asp	Ser	Leu	Asn	Ser	Ser	Ile	Gly	Arg	Lys	Gln	Ser	Pro														
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Thr	Val	Asp	Val	Ser	Trp	Gly	Ser	Pro	Asp	Cys	Val	Gly	Leu	Thr	Glu														
			180					185					190																
Thr	Lys	Ser	Met	Ile	Phe	Ser	Pro	Ala	Ser	Lys	Val	Tyr	Asn	Gly	Ile														
		195					200						205																
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	210					215					220																		
Pro	Lys	Pro	Arg	His	Thr	Ser	Cys	Ser	Ser	Ala	Gly	Asn	Asp	Ser	Lys														
	225				230					235				240															
Pro	Val	Gln	Glu	Ala	Pro	Ser	Val	Ala	Arg	Ile	Ser	Ser	Ile	Pro	His														
				245				250						255															
Asp	Leu	Cys	His	Asn	Gly	Glu	Lys	Ser	Lys	Lys	Pro	Ser	Lys	Ile	Lys														
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<210> 23

<211> 1347

<212> DNA

<213> Homo sapiens

<400> 23

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<210> 24

<211> 182

<212> PRT

<213> Homo sapiens

<400> 24

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Leu Ser Asn Tyr Ile Lys Phe Arg Asp Cys Val Lys Phe Asp Ile Val
35 40 45

Gly Tyr Gly Gly Phe Gly Met Pro Leu Thr Lys Leu Gly Gln Glu Glu
50 55 60

Ala Leu Tyr Gln Ala Leu Lys Asn Val His Pro Asp Leu His Val Tyr
65 70 75 80

Lys Lys Glu Phe Pro Glu Asp Phe His Leu Ala Lys His Asp Gln Val
85 90 95

Leu Pro Ile Met Met Tyr Ala Asn Cys Gly Tyr Ser Ile Asn Gly Arg
100 105 110

Ile Ile Met Cys Phe Asn Lys Gly Ser His Gly Phe Asp Asn Val Leu
115 120 125

Met Asp Ile Lys Thr Ile Phe Arg Asp Phe Gly Pro Asp Phe Lys Arg
130 135 140

Asn Arg Leu Ala Glu Pro Phe Asn Ser Ile His Ile Tyr Pro Phe Val

145

150

155

160

Cys Lys Leu Leu Gly Val Thr Pro Lys Pro Thr Thr Ala Pro Trp Gln
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Ser Pro Arg Lys Cys Ser
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<210> 25

<211> 1683

<212> DNA

<213> Homo sapiens

<400> 25

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<210> 26

<211> 171

<212> PRT

<213> Homo sapiens

<400> 26

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Lys Asp His Ile Phe Ser Thr Ser Leu Asp Trp Gly Thr Asn Val Asp
 20 25 30

Asn Ser Ser Phe Ala Asp Cys Glu Lys Gly Met Arg Asn Gly Pro Asp
 35 40 45
 Gly Ile Phe Phe Leu Tyr Leu Gln Gly Asn Lys Ala Ala Ser Ser His
 50 55 60
 Tyr Ser Arg Glu Val Leu Asn Met Arg Val Arg Leu Val Lys Arg Ser
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 Leu Val Glu Ser Tyr Thr His Pro Asn Ser Lys Glu Thr Glu Arg Arg
 85 90 95
 Glu Asn Ile Asp Thr Val Leu Asn Trp Phe Thr Lys Glu Glu Phe Asp
 100 105 110
 Phe Val Thr Leu Tyr Tyr Arg Glu Pro Asp Asn Met Gly His Arg Phe
 115 120 125
 Arg Pro Glu Ala Glu Asn Arg Lys Leu Met Ile Gln Gln Ile Asn Arg
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<210> 27
 <211> 2912
 <212> DNA
 <213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 28

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Thr Asp Phe Phe Pro Cys Thr Val Thr Cys Gly Gly Gly Tyr Gln Leu
 35 40 45

Asn Ser Ala Glu Cys Val Asp Ile Arg Leu Lys Arg Val Val Pro Asp
 50 55 60

His Tyr Cys His Tyr Tyr Pro Glu Asn Val Lys Pro Lys Pro Lys Leu
 65 70 75 80

Lys Glu Cys Ser Met Asp Pro Cys Pro Ser Ser Asp Gly Phe Lys Glu
 85 90 95

Ile Met Pro Tyr Asp His Phe Gln Pro Leu Pro Arg Trp Glu His Asn
 100 105 110

Pro Trp Thr Ala Cys Ser Val Ser Cys Gly Gly Gly Ile Gln Arg Arg
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Ser Phe Val Cys Val Glu Glu Ser Met His Gly Glu Ile Leu Gln Val

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Cys Asn Leu Phe Asp Cys Pro Lys Trp Ile Ala Met Glu Trp Ser Gln 165 170 175		
Cys Thr Val Thr Cys Gly Arg Gly Leu Arg Tyr Arg Val Val Leu Cys 180 185 190		
Ile Asn His Arg Gly Glu His Val Gly Gly Cys Asn Pro Gln Leu Lys 195 200 205		
Leu His Ile Lys Glu Glu Cys Val Ile Pro Ile Pro Cys Tyr Lys Pro 210 215 220		
Lys Glu Lys Ser Pro Val Glu Ala Lys Leu Pro Trp Leu Lys Gln Ala 225 230 235 240		
Gln Glu Leu Glu Glu Thr Arg Ile Ala Thr Glu Glu Pro Thr Phe Ile 245 250 255		
Pro Glu Pro Trp Ser Ala Cys Ser Thr Thr Cys Gly Pro Gly Val Gln 260 265 270		
Val Arg Glu Val Lys Cys Arg Val Leu Leu Thr Phe Thr Gln Thr Glu 275 280 285		
Thr Glu Leu Pro Glu Glu Glu Cys Glu Gly Pro Lys Leu Pro Thr Glu 290 295 300		
Arg Pro Cys Leu Leu Glu Ala Cys Asp Glu Ser Pro Ala Ser Arg Glu 305 310 315 320		
Leu Asp Ile Pro Leu Pro Glu Asp Ser Glu Thr Thr Tyr Asp Trp Glu 325 330 335		
Tyr Ala Gly Phe Thr Pro Cys Thr Ala Thr Cys Val Gly Gly His Gln 340 345 350		
Glu Ala Ile Ala Val Cys Leu His Ile Gln Thr Gln Gln Thr Val Asn 355 360 365		
Asp Ser Leu Cys Asp Met Val His Arg Pro Pro Ala Met Ser Gln Ala 370 375 380		
Cys Asn Thr Glu Pro Cys Pro Pro Arg Trp His Val Gly Ser Trp Gly 385 390 395 400		
Pro Cys Ser Ala Thr Cys Gly Val Gly Ile Gln Thr Arg Asp Val Tyr 405 410 415		
Cys Leu His Pro Gly Glu Thr Pro Ala Pro Pro Glu Glu Cys Arg Asp 420 425 430		
Glu Lys Pro His Ala Leu Gln Ala Cys Asn Gln Phe Asp Cys Pro Pro 435 440 445		

Gly	Trp	His	Ile	Glu	Glu	Trp	Gln	Gln	Cys	Ser	Arg	Thr	Cys	Gly	Gly		
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Gly	Thr	Gln	Asn	Arg	Arg	Val	Thr	Cys	Arg	Gln	Leu	Leu	Thr	Asp	Gly		
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Ser	Phe	Leu	Asn	Leu	Ser	Asp	Glu	Leu	Cys	Gln	Gly	Pro	Lys	Ala	Ser		
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Ser	Cys	Gln	Met	Pro	Glu	Cys	Ser	Lys	Ile	Lys	Ser	Glu	Met	Lys	Thr		
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Ile	Gln	Thr	Arg	Glu	Glu	Lys	Arg	Ile	Asn	Leu	Thr	Ile	Gly	Ser	Arg		
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His	Gly	Leu	Ala	Ala	Pro	Asp	Ile	Gly	Val	Tyr	Arg	Cys	Ile	Ala	Gly		
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Leu	Ile	Ala	Arg	Pro	Ala	Leu	Arg	Glu	Pro	Met	Arg	Glu	Tyr	Pro	Gly		
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Met	Asp	His	Ser	Glu	Ala	Asn	Ser	Leu	Gly	Val	Thr	Trp	His	Lys	Met		
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Arg	Gln	Met	Trp	Asn	Asn	Lys	Asn	Asp	Leu	Tyr	Leu	Asp	Asp	Asp	His		
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Ser Ala Gly Ser Thr Asn Ser Trp Glu Leu Lys Asn Lys Gln Phe Glu
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 Ala Ala Val Lys Gln Gly Ala Tyr Ser Met Asp Thr Ala Gln Phe Asp
 770 775 780
 Glu Leu Ile Arg Asn Met Ser Gln Leu Met Glu Thr Gly Glu Val Ser
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 Asp Asp Leu Ala Ser Gln Leu Ile Tyr Gln Leu Val Ala Glu Leu Ala
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 Lys Ala Gln Pro Thr His Met Gln Trp Arg Gly Ile Gln Glu Glu Thr
 820 825 830
 Pro Pro Ala Ala Gln Leu Arg Gly Glu Thr Gly Ser Val Ser Gln Ser
 835 840 845
 Ser His Ala Lys Asn Ser Gly Lys Leu Thr Phe Lys Pro Lys Gly Pro
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 Val Leu Met Arg Gln Ser Gln Pro Pro Ser Ile Ser Phe Asn Lys Thr
 865 870 875 880
 Ile Asn Ser Arg Ile Gly Asn Thr Val Tyr Ile Thr Lys Arg Thr Glu
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<210> 29
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 <223> wherein n is g or a or t or c

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acnnt						3905

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 <212> PRT
 <213> Homo sapiens

<400> 30

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Lys	Asn	Gly	Met	Val	Phe	Gly	Lys	Glu	Tyr	Thr	Val	Gly	Thr	Lys	Ala
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Val	Tyr	Ser	Cys	Ser	Glu	Gly	Tyr	His	Leu	Gln	Ala	Gly	Ala	Glu	Ala
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Thr	Ala	Glu	Cys	Leu	Asp	Thr	Gly	Leu	Trp	Ser	Asn	Arg	Asn	Val	Pro
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Pro	Gln	Cys	Val	Pro	Val	Thr	Cys	Pro	Asp	Val	Ser	Ser	Ile	Ser	Val
				85					90					95	
Glu	His	Gly	Arg	Trp	Arg	Leu	Ile	Phe	Glu	Thr	Gln	Tyr	Gln	Phe	Gln
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Ala	Gln	Leu	Met	Leu	Ile	Cys	Asp	Pro	Gly	Tyr	Tyr	Tyr	Thr	Gly	Gln
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Arg	Val	Ile	Arg	Cys	Gln	Ala	Asn	Gly	Lys	Trp	Ser	Leu	Gly	Asp	Ser
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Thr	Pro	Thr	Cys	Arg	Ile	Ile	Ser	Cys	Gly	Glu	Leu	Pro	Ile	Pro	Pro
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Phe	Ser	Cys	Asn	Ser	Gly	Tyr	Thr	Leu	Val	Gly	Ser	Arg	Val	Arg	Glu
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Trp	Ser	Gly	Lys	Thr	Pro	Phe	Cys	Val	Pro	Ile	Thr	Cys	Gly	His	Pro
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Gly Asn Pro Val Asn Gly Leu Thr Gln Gly Asn Gln Phe Asn Leu Asn
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 Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala
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 Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro
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 Thr Cys Arg Ile Ile Asn Cys Thr Asp Pro Gly His Gln Glu Asn Ser
 325 330 335
 Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr
 340 345 350
 Thr Val Ser Tyr Arg Cys Thr Thr Ala Ser Thr Ser Trp Ala Thr Pro
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 Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln
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 Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln
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 Met Ser Gly Asp Ser Tyr Thr Val Gly Ala Val Val Arg Tyr Ser Cys
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Gly Leu Arg Leu Gly Asn Asp Phe Arg Tyr Asn Lys Thr Val Thr Tyr
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 Gln Cys Val Pro Gly Tyr Met Met Glu Ser His Arg Val Ser Val Leu
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 Ser Pro Arg Arg Phe Cys Gln Ser Asp Gly Thr Trp Ser Gly Thr Gln
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 Val Gly Ala Leu Asp Leu Pro Ser Met Gly Tyr Thr Leu Ile Thr Pro
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 <213> Homo sapiens

<400> 31

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<212> PRT

<213> Homo sapiens

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Thr Ala Glu Cys Leu Asp Thr Gly Leu Trp Ser Asn Arg Asn Val Pro
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Pro Gln Cys Val Pro Val Thr Cys Pro Asp Val Ser Ser Ile Ser Val
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Glu His Gly Arg Trp Arg Leu Ile Phe Glu Thr Gln Tyr Gln Phe Gln
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Ala Gln Leu Met Leu Ile Cys Asp Pro Gly Tyr Tyr Tyr Thr Gly Gln
115 120 125

Arg Val Ile Arg Cys Gln Ala Asn Gly Lys Trp Ser Leu Gly Asp Ser
130 135 140

Thr Pro Thr Cys Arg Ile Ile Ser Cys Gly Glu Leu Pro Ile Pro Pro
145 150 155 160

Asn Gly His Arg Ile Gly Thr Leu Ser Val Tyr Gly Ala Thr Ala Ile
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Phe Ser Cys Asn Ser Gly Tyr Thr Leu Val Gly Ser Arg Val Arg Glu

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Phe Arg Leu Ile Gly Met Ser Val Arg Ile Cys Gln Gln Asp His His 245 250 255		
Trp Ser Gly Lys Thr Pro Phe Cys Val Pro Ile Thr Cys Gly His Pro 260 265 270		
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Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala 290 295 300		
Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro 305 310 315 320		
Thr Cys Arg Ile Ile Asn Cys Thr Asp Pro Gly His Gln Glu Asn Ser 325 330 335		
Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr 340 345 350		
Thr Val Ser Tyr Arg Cys Asn His Gly Phe Tyr Leu Leu Gly Thr Pro 355 360 365		
Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln 370 375 380		
Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln 385 390 395 400		
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Ile Gly Lys Arg Thr Leu Val Gly Asn Ser Thr Arg Met Cys Gly Leu 420 425 430		
Asp Gly His Trp Thr Gly Ser Leu Pro His Cys Ser Gly Thr Ser Val 435 440 445		
Gly Val Cys Gly Asp Pro Gly Ile Pro Ala His Gly Ile Arg Leu Gly 450 455 460		
Asp Ser Phe Asp Pro Gly Thr Val Met Arg Phe Ser Cys Glu Ala Gly 465 470 475 480		
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 Gly Thr Pro Ser Asn Ala Arg Val Val Phe Ser Asp Gly Leu Val Phe
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 Ser Ser Ser Ile Val Tyr Glu Cys Arg Glu Gly Tyr Tyr Ala Thr Gly
 530 535 540
 Leu Leu Ser Arg His Cys Ser Val Asn Gly Thr Trp Thr Gly Ser Asp
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 Pro Glu Cys Leu Val Ile Asn Cys Gly Asp Pro Gly Ile Pro Ala Asn
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 Gly Leu Arg Leu Gly Asn Asp Phe Arg Tyr Asn Lys Thr Val Thr Tyr
 580 585 590
 Gln Cys Val Pro Gly Tyr Met Met Glu Ser His Arg Val Ser Val Leu
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 Ser Cys Thr Lys Asp Arg Thr Trp Asn Gly Thr Lys Pro Val Cys Lys
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 Thr Arg Thr Cys Leu Pro Asn Leu Thr Trp Ser Gly Thr Pro Pro Asp
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Cys Val Pro His His Cys Arg Gln Pro Glu Thr Pro Thr His Ala Asn
805 810 815

Val Gly Ala Leu Asp Leu Pro Ser Met Gly Tyr Thr Leu Ile Thr Pro
820 825 830

Ala Arg Arg Ala Ser Pro Ser Arg Val Ala Pro Ser Thr Ala Pro Ala
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<400> 34
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<211> 13

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